

**IN THE CLAIMS**

**Claims 1 and 4 are amended.**

**Claims 2, 3 and 26-43 are cancelled.**

**Claims 44-64 are new claims.**

1. (Currently Amended) A method for treating a patient, comprising:  
selecting a patient having an indwelling intravascular catheter defining a lumen therethrough and having an infection or a substantial risk of infection related to the presence of the catheter; and  
infusing a catheter lock solution into the lumen, the solution comprising a citrate salt solution having a concentration effective to eliminate infection and to reduce the likelihood of subsequent infection;  
wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 10% and about 40%.
2. (Cancelled)
3. (Cancelled)
4. (Currently Amended) The method of claim 3-1 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 20% and about 30%.

5. (Previously Amended) The method of claim 1 wherein the lock solution includes a viscosifying agent selected from polyethylene glycol, glycerin, polygeline and mixtures thereof.

6. (Previously Amended) The method of claim 1 wherein the lock solution has a pH level between about 4.5 and about 6.5.

7. (Previously Amended) The method of claim 1 wherein the lumen of the catheter has an internal volume and said infusing includes infusing the lumen with an amount of the lock solution sufficient to fill between about 80% and about 100% of the internal volume of the lumen.

8. (Previously Amended) The method of claim 1 wherein the catheter has an internal volume and said adding includes injecting the catheter with an amount of the lock solution greater than or equal to about 1.1 times the internal volume of the lumen.

9. (Original) A method of inhibiting infections in an animal having an indwelling catheter defining at least one lumen therethrough, said method comprising infusing into the lumen a pharmaceutically acceptable lock solution including a compound having anticoagulant and antibiotic activity, wherein said lock solution has a

density and a viscosity sufficient to maintain the lock solution in said lumen for a desired amount of time, wherein the desired amount of time is at least about 8 hours.

10. (Original) The method of claim 9 wherein the lock solution includes a citrate salt in a hypertonic concentration range, in weight percent, of between 1.5% and 50%.

11. (Original) The method of claim 10 wherein the lock solution includes a citrate salt in a concentration range, in weight percent, of between 10% and 40%.

12. (Original) The method of claim 11 wherein the lock solution includes a citrate salt in a concentration range, in weight percent, of between 20% and 30%.

13. (Previously Amended) The method of claim 9 wherein the lock solution includes a viscosifying agent selected from polyethylene glycol, glycerin, polygeline or mixtures thereof.

14. (Previously Amended) The method of claim 9 wherein the lock solution has a density of between about 1.02 g/ml to about 1.04 g/ml and a viscosity of between about 1.5 cP and about 4.0 cP.

15. (Previously Amended) The method of claim 9 wherein the lock solution has a density of between about 1.02 g/ml and about 1.03 g/ml a viscosity of between about 1.5 cP and about 2.0 cP.

16. (Previously Amended) The method of claim 9 wherein the lumen of the catheter has an internal volume and said infusing includes infusing the lumen with an amount of the lock solution sufficient to fill between about 80% and about 100% of the internal volume of the lumen.

17. (Previously Amended) The method of claim 9 wherein the lumen of the catheter has an internal volume and said infusing includes infusing the lumen with an amount of the lock solution greater than or equal to about 1.1 times the internal volume of the lumen.

18. (Previously Amended) The method of claim 9 wherein the lock solution has a pH level between about 4.5 and about 6.5.

19. (Original) A method of treating animals having a surgically implanted catheter, said method comprising infusing into said catheter a pharmaceutically acceptable lock solution comprising a bactericidal component, said bactericidal component including greater than about 50%, by weight based on the weight of the bactericidal component, of a citrate salt.

20. (Original) The method of claim 19 wherein the bactericidal component includes greater than about 75%, by weight based on the weight of the bactericidal component, of a citrate salt.

21. (Previously Amended) The method of claim 19 wherein the bactericidal component includes greater than about 90%, by weight based on the weight of the bactericidal component, of a citrate salt.

22. (Previously Amended) The method of claim 19 wherein the lock solution includes a viscosifying agent.

23. (Previously Amended) The method of claim 19 wherein the pharmaceutically acceptable lock solution has a pH between about 4.5 and about 6.5.

24. (Previously Amended) The method of claim 19 wherein the lumen of the catheter has an internal volume and said infusing includes infusing the lumen with an amount of the lock solution sufficient to fill between about 80% and about 100% of the internal volume of the lumen.

25. (Previously Amended) The method of claim 19 wherein the lumen of the catheter has an internal volume and said infusing includes infusing the lumen with an

amount of the lock solution greater than or equal to about 1.1 times the internal volume of the lumen.

Claims 26-43 (Cancelled)

44. (New) A method for treating a patient, comprising:

selecting a patient having an indwelling intravascular catheter defining a lumen therethrough and having an infection or a substantial risk of infection related to the presence of the catheter; and

infusing a catheter lock solution into the lumen, the solution comprising a citrate salt solution having a concentration effective to eliminate infection and to reduce the likelihood of subsequent infection;

wherein the lock solution includes a viscosifying agent selected from polyethylene glycol, glycerin, polygeline and mixtures thereof.

45. (New) The method of claim 44 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 1.5% and about 50%.

46. (New) The method of claim 44 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 10% and about 40%.

47. (New) The method of claim 44 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 20% and about 30%.

48. (New) The method of claim 44 wherein the lock solution has a pH level between about 4.5 and about 6.5.

49. (New) The method of claim 44 wherein the lumen of the catheter has an internal volume and said infusing includes infusing the lumen with an amount of the lock solution sufficient to fill between about 80% and about 100% of the internal volume of the lumen.

50. (New) The method of claim 44 wherein the catheter has an internal volume and said adding includes injecting the catheter with an amount of the lock solution greater than or equal to about 1.1 times the internal volume of the lumen.

51. (New) A method for treating a patient, comprising:  
selecting a patient having an indwelling intravascular catheter defining a lumen therethrough and having an infection or a substantial risk of infection related to the presence of the catheter; and  
infusing a catheter lock solution into the lumen, the solution comprising a citrate salt solution having a concentration effective to eliminate infection and to reduce the likelihood of subsequent infection;

wherein the lumen of the catheter has an internal volume and said infusing includes infusing the lumen with an amount of the lock solution sufficient to fill between about 80% and about 100% of the internal volume of the lumen.

52. (New) The method of claim 51 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 1.5% and about 50%.

53. (New) The method of claim 52 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 10% and about 40%.

54. (New) The method of claim 51 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 20% and about 30%.

55. (New) The method of claim 51 wherein the lock solution includes a viscosifying agent selected from polyethylene glycol, glycerin, polygeline and mixtures thereof.

56. (New) The method of claim 51 wherein the lock solution has a pH level between about 4.5 and about 6.5.

57. (New) A method for treating a patient, comprising:

selecting a patient having an indwelling intravascular catheter defining a lumen therethrough and having an infection or a substantial risk of infection related to the presence of the catheter; and

infusing a catheter lock solution into the lumen, the solution comprising a citrate salt solution having a concentration effective to eliminate infection and to reduce the likelihood of subsequent infection;

wherein the catheter has an internal volume and said adding includes injecting the catheter with an amount of the lock solution greater than or equal to about 1.1 times the internal volume of the lumen.

58. (New) The method of claim 57 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 1.5% and about 50%.

59. (New) The method of claim 58 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 10% and about 40%.

60. (New) The method of claim 57 wherein the lock solution comprises a citrate salt in a concentration range, in weight percent, of between about 20% and about 30%.

61. (New) The method of claim 57 wherein the lock solution includes a viscosifying agent selected from polyethylene glycol, glycerin, polygeline and mixtures thereof.

62. (New) The method of claim 57 wherein the lock solution has a pH level between about 4.5 and about 6.5.

63. (New) The method of claim 9 wherein the animal is a human.

64. (New) The method of claim 19 wherein the animal is a human.